(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 2 June 2005 (02.06.2005)

PCT

(10) International Publication Number WO 2005/049581 A1

(51) International Patent Classification⁷: C07D 237/22, 237/24, 401/12, 417/04, 403/04, 413/04, 401/14, 401/04, 495/04, 471/04, 417/14, A61K 31/50, 31/501, A61P 11/06

(21) International Application Number:

PCT/EP2004/012604

(22) International Filing Date:

8 November 2004 (08.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

P 200302613

10 November 2003 (10.11.2003) E

(71) Applicant (for all designated States except US): ALMI-RALL PRODESFARMA, S.A. [ES/ES]; Ronda del General Mitre, 151, E-08022 Barcelona (ES).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DAL PIAZ, Vittorio [IT/IT]; Via Poggio Ugolino, 7/A, I-50015 Impruneta (IT). AGUILAR IZQUIERDO, Nuria [ES/ES]; C/Espronceda 31-37, Esc. 2 4° 3a, E-08005 Barcelona (ES). BUIL ALBERO, Maria Antonia [ES/ES]; C/Paris 50, 1° 4a, E-08029 Barcelona (ES). GARRIDO RUBIO, Yolanda [ES/ES]; C/ Camino Cabaldos 39, 3°F, E-50013 Zaragoza (ES). GIOVANNONI, Maria, Paola [IT/IT]; Via Ponte di Formicola, 91, I-50018 Scandicci (IT). GRACIA FERRER, Jordi [ES/ES]; Plaza de las Navas, 5, 4° 2a, E-08004 Barcelona (ES). LUMERAS AMADOR,

Wenceslao [ES/ES]; C/Camprecios 19, Esc. B, 1°1a, F-08960 Sant Just Desvern (ES). VERGELLI, Claudia [IT/IT]; Via Boccaccio, 11, I-50012 Grassina (IT).

(74) Agents: WINKLER, Andreas et al.; Boehmert & Boehmert, Hollerallee 32, 28209 Bremen (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

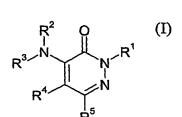
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PYRIDAZIN-3 (2H) -ONE DERIVATIVES AND THEIR USE AS PDE4 INHIBITORS



(57) Abstract: New pyridazin-e-(2H)-one derivatives having the chemical structure of general formula (I) are disclosed; as well as processes for their preparation, pharmaceutical compositions comprising them and their use in therapy as inhibitors of phosphodiesterase 4.